

Please cancel claim 2 without prejudice.

Please amend claims 1, 3, 5, 7 and 8.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for improving the sequence fidelity of synthetic double-stranded oligonucleotides, comprising subjecting synthetic double-stranded oligonucleotides to preparative ~~column chromatography~~ high performance liquid chromatography (HPLC) under partially denaturing conditions sufficient to separate synthetic double-stranded oligonucleotides into two populations of which one population is enriched for synthetic failures and the other population is depleted of synthetic failures.

2. (Currently Cancelled)

3. (Currently Amended) A method according to claim 1, wherein the ~~column~~ chromatography is denaturing high performance liquid chromatography (DHPLC).

4. (Previously Cancelled)

5. (Currently Amended) A method according to ~~any one of claims 1-3~~ claim 1 or claim 3, wherein the oligonucleotides comprise synthetic double-stranded DNA.

6. (Previously Amended) A method according to claim 5, wherein the DNA comprises one or more fragments of a gene.

7. (Currently Amended) A method according to ~~any one of claims 1-3~~ claim 1 or claim 3, wherein the synthetic failures separated are molecules containing a uridine, apurinic, apyrimidinic or diaminopurine residue.

8. (Currently Amended) A method according to ~~any one of claims 1-3~~ claim 1 or claim 3, wherein the double-stranded oligonucleotides are synthesized chemically.

9. (Original) A method according to claim 8, wherein the oligonucleotides comprise double-stranded DNA.

10. (Previously Amended) A method according to claim 9, wherein the DNA comprises one or more fragments of a gene.

11. (Previously Added) A method according to claim 5, further comprising joining oligonucleotides from the population depleted of synthetic failures, to other synthetic oligonucleotides.

12. (Previously Added) A method according to claim 11, wherein a gene or gene fragment is formed when the oligonucleotides are joined.

13. (Previously Added) A method according to claim 9, further comprising joining oligonucleotides from the population depleted of synthetic failures, to other synthetic oligonucleotides.

14. (Previously Added) A method according to claim 13, wherein a gene or gene fragment is formed when the oligonucleotides are joined.